

IN THE SPECIFICATION:

Please replace the paragraph beginning on page 2, line 24 with the following rewritten paragraph.

A saturable absorber (SA) – or bleachable filter – can be used as a passive Q-switch. A saturable absorber is a material: solid (crystal, glass, polymer); or liquid (dye) having transmittance properties that vary as a function of the intensity of the incident light that falls upon this material. When light of low intensity is incident upon the saturable absorber, its light transmittance is relatively low, resulting in high cavity losses. As the incident light energy increases, due to the buildup of energy within the laser resonator cavity, the light transmittance of the SA material increases. At some point, the light transmittance increases to a level such that the SA “bleaches”, i.e., becomes transparent, so that the cavity losses become low, and an intense Q-switched light pulse is emitted.

Please replace the paragraph beginning on page 3, line 6 with the following rewritten paragraph:

To achieve short pulse widths, the SA must switch quickly to the transparent state. However, for fast operation, the absorption cross-section of the SA is required to be much much larger than the stimulated emission cross-section of the laser gain medium:  $\sigma_{SA} \gg \sigma_{se}$ . If this is not the case, Q-switch performance generally degrades and output pulse widths increase. ~~Utilization of external pumping of the SA can overcome the limitation indicated by  $\sigma_{SA} \gg \sigma_{se}$ . Thus, many more SA materials can be effectively utilized and could enable SA switches to be developed at wavelengths where, at present, none exist.~~

Please replace the paragraph beginning on page 10, line 14 with the following rewritten paragraph.

Mode-locked operation of a CW (or long pulse) laser is essential for vibrometry functions. Although active mode-lockers exist, this inventive technique can be applied to obtain mode-locked operation of the laser. Application of this invention can provide mode-locked operation over wavelength bands where such operation is very difficult or not feasible by conventional means. ~~A laser gain and modulator switched cavity design is shown in Figure 4 below.~~